



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: T.L. Ritzdorf et al.

Attorney Docket No: SEMT116049

Application No.: 09/018,783

Group Art Unit: 2823

Filed: February 4, 1998

Examiner: D.M. Collins

Title: METHOD FOR FILLING RECESSED MICRO-STRUCTURES WITH METALLIZATION IN THE PRODUCTION OF A MICROELECTRONIC DEVICE

AMENDMENT

Seattle, Washington 98101

June 13, 2001

TO THE COMMISSIONER FOR PATENTS:

Responsive to the Office Action mailed in the immediate prior application on October 4, 2000, please amend the above continued prosecution application as follows:

In the Claims:

Amend claims in accordance with the attached markup, and cancel Claims 2, 5, 7 and 18-23. All pending claims as thusly amended follow:

1. (Amended) A method for filling recessed microstructures at a surface of a semiconductor workpiece with copper metal comprising:

depositing copper into the recessed micro-structures using an electrochemical process generating copper grains that are sufficiently small so as to substantially fill the recessed microstructures; and

subjecting the surface of the semiconductor workpiece with the deposited copper to an elevated temperature annealing process at a temperature below about 100 degrees Celsius for a time period that is sufficient to increase the grain size of the deposited copper.

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